



Tidewater Goby Management & Ecology

Pt. Reyes National Seashore
Sept. 21-23, 2018



Instructors

Ramona Swenson, Ph. D.
Restoration Ecology Program Manager
Environmental Science Associates

Darren Fong
Aquatic Ecologist
Golden Gate National Recreation Area

Brenton Spies, M.S.
Ecology and Evolutionary Biology
University of California Los Angeles

Michael Reichmuth
Fisheries Biologist
Point Reyes National Seashore

Daniel Chase, M.S.
Senior Fisheries Biologist
WRA

Description: This workshop, jointly hosted by the Cal/Neva Chapter of the American Fisheries Society and the Western Section of The Wildlife Society, will focus on one of California's most enigmatic species: the Northern tidewater goby (*Eucylogobius newberryi*) and the recently named Southern tidewater goby (*Eucylogobius kristinae*). Our instructors will discuss natural history, mitigation, restoration, and survey techniques for this Federally Endangered species. The field portion will demonstrate survey techniques for goby species.

What's Included: Lodging (dorm style), meals (2 breakfasts, 2 lunches, 2 dinners), field experience, low participant ratio with access to the experts of this species.

Coordinator/Contact for Questions: Ivan Parr, workshops@twc-west.org

Registration

All registrants complete the secure online form on the [registration page](#).

The cutoff date for early registration is August 21, 2018. Registration is payable by credit card. A registration is required to hold your spot in the workshop. Instructions are included in the online registration process.

There will be a maximum enrollment of participants, after which a wait list will be kept. A minimum of 13 participants must register for the identification course by **August 21** or the workshop will be cancelled and all registration fees will be returned.

Registration Categories	Full Course and Field Survey (Sept. 21-23)	
	Early Reg (by 8/21)	Late Reg (after 8/21)
Member, TWS Western Section or AFS	\$550	\$585
Non-Member	\$595	\$630
Student/Early Career professional*	\$317	\$352

*Must show proof of current registration at an accredited university, or graduation within 1 year.

If the workshop must be rescheduled, we will offer transfer registrations to the alternate dates in the priority that registrations were initially received.

Cancellation and Refund Policy: Please see our cancellation policy on the [registration page](#).



Location



Our workshop will be set at the [Clem Miller Education Center](#) in Pt. Reyes National Seashore. The Clem Miller Education Center, a model for environmental sustainability, is located in a remote part of Pt. Reyes near Limantour Beach, adjacent to the Phillip Burton Wilderness. The Center contains a large classroom with electricity (provided by photovoltaic modules), a library, full kitchen (with compost and recycling systems), and space for 80+ people.

Note: There is neither internet access nor phone service at the Clem Miller Education Center.

Lodging at the Clem Miller comes in the form of rustic bunk dorms with mattresses. There is no electricity within the dorm rooms, although the classroom does have power. Participants will be required to bring their own bedding (sleeping bag, pillow, etc) and are responsible for keeping the facility clean. Running water, solar-heated showers, and flush toilets are available at the center. No pets are allowed. Use of the facility will require participants to know and follow all [rules associated with Pt Reyes National Park](#). The Clem Miller Education Center is a dry campus.

Meals



Our chef, internationally-travelling Julie Garren, will be providing cooked breakfasts and dinners for the group. Fixings will be provided for participants to make their own care packs for lunch. Julie is an expert in organic and vegetable-based meals, and can accommodate your special needs/preferences with **advanced notification** if you provide these to Ivan Parr at workshops@tws-west.org a minimum of three weeks prior to the workshop.



Photo by Brenton Spies

DRAFT WORKSHOP SCHEDULE

Subject to Change Per Instructors

September 21, Natural History

1:00 - 2:00 Registration
2:00 - 2:45 Introductions and Orientation
2:45 - 3:30 Introduction to Tidewater Goby
3:30 - 3:45 *Break*
3:45 - 5:00 Life History
5:00 - 5:15 *Break*
5:15 - 6:15 Genetics
6:15 - 7:30 *Dinner*

September 22, Regulation and Restoration

7:30 - 8:00 *Breakfast*
8:00 - 9:00 Tidewater Goby Genetics
9:00 - 9:30 Threats: Pathology
9:30 - 9:45 *Break*
9:45 - 10:15 Threats: Invasives
10:00 - 10:15 *Break*
10:15 - 11:15 Threats: Water Quality
11:15 - 12:00 Endangered Species Act (federal)
12:00 - 1:15 *Lunch*
1:15 - 2:00 State and Local Permitting
2:00 - 3:00 Restoration
3:00 - 3:15 *Break*
3:15 - 4:15 Mitigation Projects Involving Tidewater Goby
4:15 - 4:30 *Break*
4:30 - 5:00 Sampling and Survey Techniques
5:00 - 6:00 Threats and Conservation
7:00 - 8:00 *Dinner*



Photo by Brenton Spies

September 23, Field Surveys

(Note: Participants will not be personally handling tidewater goby)

7:00 - 8:00 *Breakfast*, pack field lunch
8:00 - 9:00 Cleanup
9:00 - 5:00 Survey Demonstration
5:00 PM Depart
Break into groups and rotate between 3 stations in the field.
Locations TBD within Pt. Reyes National Seashore

Instructor Biographies



Ramona Swenson, Ph.D

Ramona has nearly 25 years of experience in natural resource management and conservation spanning across academic, private sector, government (including USFWS), nonprofit (Nature Conservancy), and the Smithsonian. She is currently the Restoration Ecology Program Manager at Environmental Science Associates. Her interests include estuarine ecology, ecosystem restoration, and behavioral ecology of fishes. Ramona earned her Ph.D. in Integrative Biology at U.C. Berkeley in 1995, studying the reproductive behavior and ecology of the tidewater

goby. Ramona was President of the Cal-Neva Chapter of the American Fisheries Society and currently serves on the Executive Committee.

Darren Fong

Darren has over 20 years of field experience working with tidewater gobies at the Golden Gate National Recreation Area. He is currently responsible for the Park's monitoring program for tidewater goby at Rodeo Lagoon and tried to establish a population at a new locality in Tomales Bay. He has also been involved with Section 7 consultations for tidewater gobies and currently holds a Section 10 permit allowing for collection and handling of the beast.



Michael Reichmuth

Michael has over 15 years of experience in fisheries with over 10 years of field experience working with tidewater gobies within the Golden Gate National Recreation Area. Currently, Michael is the fisheries program manager for the NPS Coho and Steelhead Monitoring Program. In particular Michael was responsible for the Park's monitoring program for tidewater goby before, during, and after the

construction of the Giacomini Wetland in Tomales Bay. He has also been involved with Section 7 consultations within park lands regarding tidewater gobies and currently holds a Section 10 permit allowing for collection and handling of Tidewater goby.

Brenton Spies, M. S.

An accomplished researcher and photographer, Brenton Spies worked as an aquarist before entering his Ph.D. program at UCLA. Brenton's specialties lie in genetics, conservation, and evolutionary biology. A graduate of Dr. Mark Steele's Fish Ecology Lab, Brenton's Master's Thesis was on the latitudinal variation in the early life history of the arrow and tidewater gobies, with implications for conservation. More recently, he was an author on the paper which described the



rare Southern tidewater goby *Eucylogobius kristinae*.



Dan Chase, M.S.

Dan Chase is a senior fisheries biologist at WRA, Inc. with over 13 years experience working on fisheries and aquatic projects throughout California. He completed a master of science in physiology and behavioral biology from San Francisco State University where he studied the stress response and growth rate of juvenile tidewater goby. Dan holds a Section 10 recovery permit for tidewater goby, and has survey experience with the species in Sonoma, Marin, Santa Barbara, Ventura, and Orange Counties.